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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,097	02/03/2004	Masashi Aikawa	482782005410	5056
25224	7590	06/09/2005	EXAMINER	
MORRISON & FOERSTER, LLP 555 WEST FIFTH STREET SUITE 3500 LOS ANGELES, CA 90013-1024			PANG, ROGER L	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/772,097

Applicant(s)

AIKAWA ET AL.

Examiner

Roger L. Pang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2, 6-8, 12-14 and 30-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2, 6-8, 12-14 and 30-35 is/are rejected.
- 7) ☒ Claim(s) 36-37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/829,335.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2-3-04 & 4-11-05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following action is in response to the election filed for application 10/772,097 on October 18, 2004.

Election/Restrictions

Applicant's election without traverse of Transmission 1 in the reply filed on October 18, 2004 is acknowledged.

Oath/Declaration

There is no mention of the present application being a divisional of application 09/829,335 in the Oath.

Claim Objections

Claim 32 is objected to because of the following informalities: "w heel" (on line 2) should be replaced with --wheel--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 29-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regard to claim 29, "the plurality of reduction gears" lacks antecedent basis. With regard to claims 30, 32, and 35, the limitation of "a main drive wheel" and "an auxiliary drive wheel" need not be repeated once the limitation is already introduced.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2, 8, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Takemura '227. With regard to claim 2, Takemura teaches a power transmission system comprising: a speed reducing mechanism 3 for speed-reducing drive power of an electric motor 2; a differential apparatus 32 for distributing speed-reduced drive power to axle ends; a clutch 29 configured for interruptive transmission of drive power between the speed-reducing mechanism and the differential apparatus; a main power source 1; and the electric motor used as an auxiliary drive power source relative to the main drive power source (Fig. 1). With regard to claim 8, Takemura teaches the system, wherein the speed-reducing mechanism and the differential apparatus are integrally arranged in a casing 9. With regard to claim 29, Takemura teaches the system, wherein a plurality of reduction gear sets of the speed-reducing mechanism is provided near a differential center of the differential apparatus.

Claims 6-7, 12, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Arai '606. With regard to claim 6, Arai teaches a power transmission system comprising: a speed reducing mechanism 5a for speed-reducing drive power of an electric motor 5; a differential apparatus 7 for distributing speed-reduced drive power to axle ends; and a clutch 6 configured for interruptive transmission of drive power between the speed-reducing mechanism and the differential apparatus, wherein the speed-reducing comprises a plurality of reduction gear sets

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5a,8 and the clutch is disposed in a power transmission path of the speed-reducing mechanism.

With regard to claim 7, Arai teaches the system, wherein the speed-reducing mechanism and the differential apparatus are neighbored to each other, and the clutch is coaxially provided to one of the plurality of reduction gear sets of the speed reducing mechanism that is nearest to the differential apparatus (Fig. 1). With regard to claim 12, Arai teaches the system, wherein the plurality of reduction gear sets of the speed-reducing mechanism is provided near a differential center of the differential apparatus (Fig. 1). With regard to claim 32, Arai teaches the system (see rejection of claim 6); and a main drive wheel 3R and an auxiliary drive wheel 4R.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takemura '227 in view of Teraoka. With regard to claim 13, Takemura teaches the system (see rejection of claim 2), but lacks the specific teaching of said clutch comprising a frictional clutch. Teraoka teaches a clutch 1041 between two shafts, wherein the clutch is a frictional clutch. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Takemura to employ a frictional clutch in view of Teraoka in order to controllably and stably limit the differential motion between two shafts (Abstract). With regard to claim 14, Teraoka teaches the system, where the frictional clutch comprises a multi-plate clutch 1041.

Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai '606 in view of Teraoka. With regard to claim 30, Arai teaches the system (see rejection of claim 32); wherein a combination of a reduction 5a and a clutch 6 is disposed between the electric motor and the differential; and an actuator 62 configured to provide the clutch with an engagement force, but lacks the teaching of said clutch having a cam mechanism. Teraoka teaches a clutch 1041 between two shafts, wherein the clutch is a frictional clutch actuated 1063 by a cam mechanism 1053. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Takemura to employ a frictional clutch actuated by a cam mechanism in view of Teraoka in order to controllably and stably limit the differential motion between two shafts (Abstract). With regard to claim 31, Teraoka teaches the system, wherein the actuator 1063 is electrically operable to provide the engagement force.

Claims 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai '606 in view of Tokushima '901. With regard to claim 33, Arai teaches the system, but lacks the specific teaching of bearings supporting the input shaft. Tokushima teaches of a clutch 41 disposed between bearings supporting an input shaft (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Arai to employ bearings to support the input shaft in view of Tokushima in order to provide support within the vehicle. With regard to claim 34, Arai teaches the system, wherein the output gear 8 is at a front gear stage of reduction and the clutch is disposed in opposition to the final reduction gear 8 relative to the output gear at the front gear stage, but lacks the specific teaching of bearings supporting the input shaft. Tokushima teaches of a clutch 41 disposed between bearings supporting an input shaft (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the

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invention to modify Arai to employ bearings to support the input shaft in view of Tokushima in order to provide support within the vehicle. With regard to claim 35, Arai teaches the system (see rejection of claim 32), but lacks the specific teaching of a casing. Tokushima teaches transmission system, wherein a combination of a plurality of reductions 25,29 and a clutch 44 are disposed between an electric motor 11 and a differential 26; wherein a casing 31 is configured to accommodate the differential, a plurality of gears stages of the plurality of reduction gears, and the clutch; and a seal is disposed between the casing and a power transmission member 23 provided through the casing (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Arai to employ a casing and seal in view of Tokushima in order to protect the transmission from exterior debris.

Allowable Subject Matter

Claims 36-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Thoma has been cited to show a similar transmission configuration.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (703) 305-3597. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

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Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 305-3597) on _____ (Date)

Typed or printed name of person signing this certificate:

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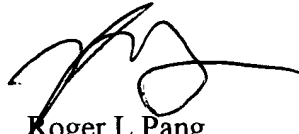
If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L. Pang whose telephone number is 571-272-7096. The examiner can normally be reached on 5:30am to 4:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roger L Pang
Primary Examiner
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June 8, 2005